

High Density Extruded Polyethylene Sheet

GEM Nautilus™ HDPE is created with an extrusion process using heat and pressure which transforms co-polymer high density polyethylene pellets into sheets of various thicknesses.

Current thickness production capability: .200” to 1.5”

Current sheet size production capability: max. 75” wide x 216” long - min. 36” x 36”
(max./min. varies with thickness)

Tolerance Information:

Gauges: +/- 5%

Length: +.25”/-0” (at room temperature)

Width: +.25”/-0” (at room temperature)

Properties	Units	Nominal Values	ASTM
Density	g/cc	0.955	D1505
Tensile Strength @ Yield	psi	>4,100	D638
Tensile Modulus	psi	250,000	D638
Elongation @ Break	%	>600	D638
Elongation @ Yield	%	9.8	D638
Flexural Modulus	psi	185,000	D790
Flexural Stress @ 5% Strain	psi	3,810	D790
Compressive Properties @ 10% Strain	psi	4,950	D695
Durometer	Shore D	68	D2240
Tensile Impact	ft.lbs/in ²	115	D1822
Izod Impact Resistance	ft/lb/in ²	1.1	D256
Brittleness Temp.	°C/°F	<-76°C (<-105°F)	D746
Vicat Softening	°C/°F	123°C(253°F)	D1525
Heat Deflection Temp. 66 psi	°C/°F	75°C (167°F)	D648
Coefficient of Linear Thermal Expansion	10 ⁻⁶ in/in C deg	155	D696
Anti-Skid Wet Coefficient of Friction	%	.60	D2047

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High Density Extruded Polyethylene Sheet - Lightweight

GEM Nautilus LT® HDPE is created with a Co-extrusion process using heat and pressure which transforms co-polymer high density polyethylene pellets into sheets of various thicknesses.

Current thickness production capability: .200” to 1.5”

Current sheet size production capability: max. 75” wide x 240” long - min. 24” x 24”
(max./min. varies with thickness)

Tolerance Information:

Gauges: +/- 5%

Length: +.25”/-0” (at room temperature)

Width: +.25”/-0” (at room temperature)

Properties	Units	Nominal Values	ASTM
Density	g/cc	0.77	D1505
Tensile Strength @ Yield	psi	>3,300	D638
Tensile Modulus	psi	165,000	D638
Elongation @ Break	%	>600	D638
Elongation @ Yield	%	9.6	D638
Flexural Modulus	psi	130,000	D790
Flexural Stress @ 5% Strain	psi	2,990	D790
Compressive Properties @ 10% Strain	psi	2,910	D695
Durometer	Shore D	64.9	D2240
Tensile Impact	ft.lbs/in ²	115	D1822
Izod Impact Resistance	ft/lb/in ²	1.4	D256
Heat Deflection Temp. 66 psi	°C/°F	87°C (188°F)	D648
Coefficient of Linear Thermal Expansion	10 ⁻⁶ in/in C deg	155	D696
Anti-Skid Wet Coefficient of Friction	%	.60	D2047

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